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### (54) DECENTRALIZING CORE NETWORK **FUNCTIONALITIES**

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#### (57)ABSTRACT

The present invention relates to methods and apparatuses for providing network access, wherein a connection to a core network is established via a wireless access device and a gateway device. Connectivity of the wireless access device is restricted to a pre-defined group of core network address of a pool of gateway devices with multi-node connectivity to the core network, and a single address is selected to establish the connection to a one of the gateway devices. The gateway device is provided with a relay function for mapping a single input address to a plurality of core network addresses based on a location information of the wireless access device and with at least one co-located decentralized core network functionality.

